CRF Errors Corrected by the TIC Systems Branch
Serial Number: 09/519225 CRF Processing Date:
Changed a file from non-ASCII to ASCII  Verified by:  Verified by:
Changed the margins in cases where the sequence text was "wrapped" down to the next line.
Edited a format error in the Current Application Data section, specifically:
Edited the Current Application Data section with the actual current number. The number inputs applicant was   the prior application data; or  other
Added the mandatory heading and subheadings for "Current Application Data".
Edited the "Number of Sequences" field. The applicant spelled out a number instead of using a
Changed the spelling of a mandatory field (the headings or subheadings), specifically:
Corrected the SEQ ID NO when obviously incorrect. The papurate numbers that were edited with
Inserted or corrected a nucleic number at the end of a nucleic line. SEO ID NO's edited:
Corrected subheading placement. All responses must be on the same line as each subheading. I applicant placed a response below the subheading, this was moved to its appropriate place.
Inserted colons after headings/subheadings. Headings edited included: RECEIVED
Deleted extra, invalid, headings used by an applicant, specifically: OCT 2 4 2001
Deleted:
Inserted mandatory headings, specifically:
Corrected an obvious error in the response, specifically:
Edited identifiers where upper case is used but lower case is required, or vice versa.
Corrected an error in the Number of Sequences field, specifically:
A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
Deleted ending stop codon in amino acid sequences and adjusted the *(A)Length: field accordingly due to a Patentin bug). Sequences corrected:
er: The above corrections must be communicated to the applicant in the first O Action. DO NOT send a copy of this form.

## OCT 2 4 2001

1647

## **TECH CENTER 1600/2900**

RAW SEQUENCE LISTING DATE: 10/22/2001 PATENT APPLICATION: US/09/528,225 TIME: 11:21:36

Input Set : A:\PTO.MH.txt

```
5 <110> APPLICANT: Wang, Yi
     Mueller, John
         Matis, Louis A.
 9 <120> TITLE OF INVENTION: Chimeric Proteins for Diagnosis and Treatment of Diabetes
11 <130> FILE REFERENCE: 109488-135
13 <140> CURRENT APPLICATION NUMBER: US 09/528,225
14 <141> CURRENT FILING DATE: 2000-03-21
16 <150> PRIOR APPLICATION NUMBER: PCT/US98/27408
17 <151> PRIOR FILING DATE: 1998-12-23
19 <150> PRIOR APPLICATION NUMBER: US 60/068,648
20 <151> PRIOR FILING DATE: 1997-12-23
22 <160> NUMBER OF SEQ ID NOS: 37
24 <170> SOFTWARE: PatentIn version 3.1
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 160
28 <212> TYPE: PRT
29 <213> ORGANISM: Artificial Sequence
31 <220> FEATURE:
32 <223> OTHER INFORMATION: IG1 Infusion Protein
36 <400> SEQUENCE: 1
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42 Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg
46 Arg Glu Ala Glu Asp Leu Asn Met Tyr Ala Met Met Ile Ala Arg Phe
50 Lys Met Phe Pro Glu Val Lys Glu Lys Gly Met Ala Ala Leu Pro Arg
                           55
54 Leu Ile Ala Phe Thr Ser Glu Lys Cys Leu Glu Leu Ala Glu Tyr Leu
                                           75
58 Tyr Asn Ile Ile Lys Asn Arg Glu Gly Tyr Glu Met Val Phe Asp Gly
                                       90
62 Lys Pro Gln His Thr Asn Val Cys Phe Trp Tyr Ile Pro Pro Ser Leu
63 100
                                   105
66 Arg Thr Leu Glu Asp Asn Glu Glu Arg Met Ser Arg Leu Ser Lys Val
67 115
                              120
70 Ala Pro Val Ile Lys Ala Arg Met Met Glu Tyr Gly Thr Thr Met Val
                          135
                                               140
74 Ser Tyr Gln Pro Leu Gly Asp Lys Val Asn His His His His His His
                       150
79 <210> SEQ ID NO: 2
80 <211> LENGTH: 180
81 <212> TYPE: PRT
82 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: IG2 Fusion Protein t
89 <400> SEQUENCE: 2
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RAW SEQUENCE LISTING DATE: 10/22/2001 PATENT APPLICATION: US/09/528,225 TIME: 11:21:36

Input Set : A:\PTO.MH.txt

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91 Met Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu
95 Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg
               20
                                   25
99 Arg Glu Ala Glu Asp Leu Met Asn Ile Leu Leu Gln Tyr Val Val Lys
                                40
103 Ser Phe Asp Asn Met Tyr Ala Met Met Ile Ala Arg Phe Lys Met Phe
107 Pro Glu Val Lys Glu Lys Gly Met Ala Ala Leu Pro Arg Leu Ile Ala
108 65
111 Phe Thr Ser Glu His Ser His Phe Ser Leu Lys Lys Cys Leu Glu Leu
                                        90
115 Ala Glu Tyr Leu Tyr Asn Ile Ile Lys Asn Arg Glu Gly Tyr Glu Met
                                   105
119 Val Phe Asp Gly Lys Pro Gln His Thr Asn Val Cys Phe Trp Tyr Ile
     115
                                120
123 Pro Pro Ser Leu Arg Thr Leu Glu Asp Asn Glu Glu Arg Met Ser Arg
                            135
127 Leu Ser Lys Val Ala Pro Val Ile Lys Ala Arg Met Met Glu Tyr Gly
                       150
                                            155
131 Thr Thr Met Val Ser Tyr Gln Pro Leu Gly Asp Lys Val Asn His His
                                        170
135 His His His
140 <210> SEQ ID NO: 3
141 <211> LENGTH: 144
142 <212> TYPE: PRT
143 <213> ORGANISM: Artificial Sequence >
145 <220> FEATURE:
146 <223> OTHER INFORMATION: IG3 Fusion Protein
150 <400> SEQUENCE: 3
152 Met Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu
156 Trp Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg
               20
                                    25
160 Arg Glu Ala Glu Asp Leu Met Asn Ile Leu Leu Gln Tyr Val Val Lys
                                40
164 Ser Phe Asp Asn Met Tyr Ala Met Met Ile Ala Arg Phe Lys Met Phe
168 Pro Glu Val Lys Glu Lys Gly Met Ala Ala Leu Pro Arg Leu Ile Ala
172 Phe Thr Ser Glu His Ser His Phe Ser Leu Lys Lys Cys Leu Glu Leu
                   85
                                       90
176 Ala Glu Tyr Leu Tyr Asn Ile Ile Lys Asn Arg Glu Gly Tyr Glu Met
                                   105
180 Val Phe Asp Gly Lys Pro Gln His Thr Asn Val Cys Phe Trp Tyr Ile
          115
                               120
184 Pro Pro Ser Leu Arg Thr Leu Glu Asp Asn His His His His His
185
       130
                           135
```

RAW SEQUENCE LISTING DATE: 10/22/2001 PATENT APPLICATION: US/09/528,225 TIME: 11:21:36

Input Set : A:\PTO.MH.txt

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190 <211> LENGTH: 181
191 <212> TYPE: PRT
192 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: IG4 Fusion Protein -
199 <400> SEQUENCE: 4
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202 1
205 Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg
209 Arg Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Gly
       . 35
                       1.
                                40
213 Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln
                            55
217 Lys Arg Gly Thr Asn Met Phe Thr Tyr Glu Ile Ala Pro Val Phe Val
                        70
                                            75
221 Leu Leu Glu Tyr Val Thr Leu Lys Lys Met Arg Glu Ile Ile Gly Trp
                    85
                                        90
225 Pro Gly Gly Ser Gly Asp Gly Gly Met Asn Ile Leu Leu Gln Tyr
229 Val Val Lys Ser Phe Asp Asn Met Tyr Ala Met Met Ile Ala Arg Phe
            115
233 Lys Met Phe Pro Glu Val Lys Glu Lys Gly Met Ala Ala Leu Pro Arg
                            135
237 Leu Gly Gly Gly Ile Ala Phe Thr Ser Glu His Ser His Phe Ser Leu
                        150
                                            155
241 Lys Lys Gly Ala Ala Ala Leu Gly Ile Gly Thr Asp Ser Val Ile His
                                        170
                    165
245 His His His His
                180
250 <210> SEQ ID NO: 5
251 <211> LENGTH: 232
252 <212> TYPE: PRT
253 <213> ORGANISM: Artificial Sequence \
255 <220> FEATURE:
256 <223> OTHER INFORMATION: IG5 Fusion Protein
260 <400> SEQUENCE: 5
262 Met Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu
263 1
266 Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg
270 Arg Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Gly
                                40
274 Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln
                           .55
278 Lys Arg Gly Thr Asn Met Phe Thr Tyr Glu Ile Ala Pro Val Phe Val
                        70
                                            75
282 Leu Leu Glu Tyr Val Thr Leu Lys Lys Met Arg Glu Ile Ile Gly Trp
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/528,225

DATE: 10/22/2001

TIME: 11:21:36

Input Set : A:\PTO.MH.txt

```
283
                     85
 286 Pro Gly Gly Ser Gly Asp Gly Gly Met Asn Ile Leu Leu Gln Tyr
                 100
                                     105
 290 Val Val Lys Ser Phe Asp Asn Met Tyr Ala Met Met Ile Ala Arg Phe
            115
                                120
 294 Lys Met Phe Pro Glu Val Lys Glu Lys Gly Met Ala Ala Leu Pro Arg
        130
                            135
 298 Leu Gly Gly Gly Ile Ala Phe Thr Ser Glu His Ser His Phe Ser Leu
                         150
                                             155
 302 Lys Lys Gly Ala Ala Ala Leu Gly Ile Gly Thr Asp Ser Val Ile Gly
                                         170
 306 Gly Gly Tyr Ile Pro Pro Ser Leu Arg Thr Leu Glu Asp Asn Glu Glu
                180
                                    185
 310 Arg Met Ser Arg Leu Ser Lys Val Ala Pro Val Ile Lys Ala Arg Met
                                200
 314 Met Glu Tyr Gly Thr Thr Met Val Ser Tyr Gln Pro Leu Gly Asp Lys
       210
                            215
 318 Val Asn His His His His His
 319 225
323 <210> SEO ID NO: 6
324 <211> LENGTH: 393
325 <212> TYPE: PRT
326 <213> ORGANISM: Artificial Sequence
328 <220> FEATURE:
329 <223> OTHER INFORMATION: IG6 Fusion Protein ^{
u}
333 <400> SEQUENCE: 6
335 Met Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu
339 Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg
                                    25
343 Arg Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly
                                40
347 Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln
351 Lys Arg Gly Thr Asn Met Phe Thr Tyr Glu Ile Ala Pro Val Phe Val
                        70
                                            75
355 Leu Leu Glu Tyr Val Thr Leu Lys Lys Met Arg Glu Ile Ile Gly Trp
                    85
359 Pro Gly Gly Ser Gly Asp Gly Gly Gly Met Asn Ile Leu Leu Gln Tyr
                                    105
363 Val Val Lys Ser Phe Asp Asn Met Tyr Ala Met Met Ile Ala Arg Phe
            115
                                120
367 Lys Met Phe Pro Glu Val Lys Glu Lys Gly Met Ala Ala Leu Pro Arg
                            135
371 Leu Gly Gly Gly Ile Ala Phe Thr Ser Glu His Ser His Phe Ser Leu
                                            155
375 Lys Lys Gly Ala Ala Ala Leu Gly Ile Gly Thr Asp Ser Val Ile Gly
                   165
                                        170
379 Gly Gly Ile Glu His Asp Pro Arg Met Pro Ala Tyr Ile Ala Thr Gln
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/528,225

DATE: 10/22/2001
TIME: 11:21:36

Input Set : A:\PTO.MH.txt

```
380
                  180
                                      185
  383 Gly Pro Leu Ser His Thr Ile Ala Asp Phe Trp Gln Met Val Trp Glu
             195
                                  200
  387 Ser Gly Cys Thr Val Ile Val Met Leu Thr Pro Leu Val Glu Asp Gly
         210
                              215
                                                  220
 391 Val Lys Gln Cys Asp Arg Tyr Trp Pro Asp Glu Gly Ala Ser Leu Tyr
                          230
                                              .235
 395 His Val Tyr Glu Val Asn Leu Val Ser Glu His Ile Trp Cys Glu Asp
                      245
                                          250
 399 Phe Leu Val Arg Ser Phe Tyr Leu Lys Asn Val Gln Thr Gln Glu Thr
                 260
                                     265
 403 Arg Thr Leu Thr Gln Phe His Phe Leu Ser Trp Pro Ala Glu Gly Thr
                                  280
 407 Pro Ala Ser Thr Arg Pro Leu Leu Asp Phe Arg Arg Lys Val Asn Lys
                             295
 411 Cys Tyr Arg Gly Arg Ser Cys Pro Ile Ile Val His Cys Ser Asp Gly
                         310
                                             315
 415 Ala Gly Arg Thr Gly Thr Tyr Ile Leu Ile Asp Met Val Leu Asn Arg
                     325
                                         330
 419 Met Ala Lys Gly Val Lys Glu Ile Asp Ile Ala Ala Thr Leu Glu His
                 340
                                     345
 423 Val Arg Asp Gln Arg Pro Gly Leu Val Arg Ser Lys Asp Gln Phe Glu
 424
             355
                                 360
 427 Phe Ala Leu Thr Ala Val Ala Glu Glu Val Asn Ala Ile Leu Lys Ala
        370
                             375
 431 Leu Pro Gln His His His His His
 432 385
 436 <210> SEQ ID NO: 7
 437 <211> LENGTH: 444
438 <212> TYPE: PRT
439 <213> ORGANISM: Artificial Sequence
441 <220> FEATURE:
442 <223> OTHER INFORMATION: IG7 Fusion Protein
446 <400> SEQUENCE: 7
448 Met Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu
449 1
                                         10
452 Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg
                20
                                    25
456 Arg Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly
                                40
460 Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln
464 Lys Arg Gly Thr Asn Met Phe Thr Tyr Glu Ile Ala Pro Val Phe Val
                        70
                                            75
468 Leu Leu Glu Tyr Val Thr Leu Lys Lys Met Arg Glu Ile Ile Gly Trp
                                        90
472 Pro Gly Gly Ser Gly Asp Gly Gly Gly Met Asn Ile Leu Leu Gln Tyr
                                    105
476 Val Val Lys Ser Phe Asp Asn Met Tyr Ala Met Met Ile Ala Arg Phe
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VERIFICATION SUMMARY

DATE: 10/22/2001

PATENT APPLICATION: US/09/528,225

TIME: 11:21:37

Input Set : A:\PTO.MH.txt